REMARKS

INTRODUCTION

In accordance with the foregoing, claims 13 and 22 have been amended. No new matter has been submitted.

Claims 1-23 are pending and under consideration, with claims 1-6, 11, 18 and 19 having been allowed.

REQUEST FOR NEW NON-FINAL OFFICE ACTION

It is respectfully submitted that the outstanding Office Action is improper for setting forth an incorrect interpretation of the underlying reference.

First it is briefly noted that, on page 9, the outstanding Office Action sets forth that "[a]pplicant's argument (page 9 of the response) that the claims should have been interpreted in light of the specification is noted. Applicant cites several cases for support, however, the USPTO uses a different standard for construing claims than that used by district courts; during examination the USPTO must give claims their broadest reasonable interpretation, MPEP 2111.01 [R-2]. Therefore this argument is not persuasive."

However, applicant's previous Amendment merely stated that the corresponding amendments were being made consistent with the previously set forth arguments, thereby particularly setting forth the intended interpretation within the claims. Thus, Applicant was not arguing for any additional interpretation of the claims outside of the claims or the specification, but rather was merely laying support, in the record, that applicants believed the same claim amendments features were already inherently included in the claim terms.

Regardless, of greater importance, the Office Action has sets forth that "[w]ith regards to apparatus claims 7-10 and 12, applicant's arguments that Ikeda et al. does not disclose 'sensing only the two test marks' is noted. However, a recitation of intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim...In the limitation of 'a test mark sensing unit *which senses only the two test marks, for the measuring of image alignment error*,' the intalicized text is language directed towards the intended use of the sensing unit."

The Office Action further sets forth that "[t]he optical sensing unit of Ikeda et al. is

capable of being operated such that it senses only two test marks, therefore Ikeda discloses this limitation."

First, as noted in the Office Action, claim terms interpretation must be reasonable. However, the Office Action has intentionally interpreted "*which senses only the two test marks, for the measuring of image alignment error,*" as intended use to broaden the claim feature to merely a test mark sensing unit.

The additional recitations are not intended use statements. Rather, the claimed "which senses only two test marks" is a patentably distinguishing feature.

According to these claim terms, the claimed test mark sensing unit must be designed to particularly perform the claimed sensing of only two test marks.

Conversely, as previously pointed out, in the relied upon reference the corresponding test mark sensing unit is not designed to perform the claimed sensing of only two marks, but rather is particularly designed to detect more that two marks.

The Office Action may be relating the claimed "*which senses only the two test marks, for the measuring of image alignment error,*" to functional language, rather than intended use, as this would appear more appropriate, but even functional language must be considered when it gives life to the claim term.

Here, similar to MPEP §2111.02, if functional features that give life to the claimed invention or thereby limit the structure, then the claimed features must be given sufficient weight, searched, and addressed in any rejection of the claim.

"A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used," e.g., a functional limitation may be used to functionally define a particular capability or purpose that is served by the recited element. MPEP § 2173.05(g) ("[i]n a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned" and "portions . . . being resiliently dilatable whereby said hosing may be slidably positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly.")

Similarly, the Office Action's interpretation of Ikeda et al. as being "capable" of implementing the claimed "sensing of only two marks" is factually incorrect.

Ikeda et al. is particularly designed to perform a particular function, which includes sensing more than two marks.

Further, the Office Action is actually setting forth that it would have been obvious to modify Ikeda et al. to only sense two marks.

However, as set forth in MPEP 2143.01, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Similarly, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." Citing In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Thus, first, it is improper to merely modify Ikeda et al. without setting forth the proper §103 rationale, and second, such a modification would not have been obvious as it would have changed the underlying operation of Ikeda et al.

Here, it as noted below, the Office Action has set forth §102 rejections for pending claims indicating that Ikeda et al. could be capable of sensing only two marks, which is improper, since the Office Action is actually saying that it would have been obvious to modify Ikeda et al. to sense only two marks.

Accordingly, it is respectfully submitted that the Office Action's outstanding interpretation of the claimed "*which senses only the two test marks, for the measuring of image alignment error,*" is improper and the outstanding §102 rejections based upon an unsupported obviousness modification of Ikeda et al. is equally improper.

Therefore, applicants respectfully request that these above remarks be addressed, the underlying interpretation of the corresponding claim term and the concluded §103 potential capability of Ikeda et al. be withdrawn, and a new non-final Office Action be issued.

Lastly, the Office Action sets forth that Ikeda et al. still discloses the features of claim 13. Applicants respectfully disagree, since Ikeda et al. still fails to disclose the detecting of an actual error distance by detectting "***only*** the first and second test marks ***for*** compensating for the image alignment error."

Here, claim 13 particularly sets forth detecting only the first and second test marks and that only the first and second test marks are used for the compensating of the image alignment error.

REJECTION UNDER 35 U.S.C. § 102:

Claims 13 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Haselby et al. (U.S. Patent No. 5,250,956). This rejection is respectfully traversed.

The Office Action sets forth that Haselby et al. discloses an error distance detecting unit which detects an actual error distance of only the first and second test marks for compensating for the image alignment error according to the detected actual error distance and the designated error distance (65, column 14, lines 37-45, if the detected error distance is different from the designated error distance, an error is detected).

Similar to applicants previous remarks regarding, i.e., that Ikeda et al. detects not only first mark and second marks, but must also detect a reference mark. Haselby et al. discloses "After sensor calibration, background values for the test area are determined, first and second vertical test lines at a selected swath location are printed in each of the carriage scan directions by the cartridge being aligned, and the horizontal positions of the vertical lines relative to each other are determined to arrive at data shift and/or timing delay corrections. The test pattern produced would be one of three possible test patterns as represented three pairs of vertical lines (a), (b), (c) in FIG. 13. The vertical lines (a) indicate that the spacing between the print cartridge and the print media is proper; the vertical segments (b) indicate that the spacing between the print cartridge and the print media is too small; and the vertical segments (c) indicate that the spacing between the print cartridge and the print media is too large. If the spacing is not proper, appropriate swath data shifts and/or cartridge delay corrections can be provided for one or both of the carriage scan directions" (col. 14, lines 37-45).

Here, Haselby et al. sets forth verifying that spacing between the print cartridge and the print media is proper, but fails to disclose "an error distance detecting unit which detects an actual error distance of only the first and second test marks for compensating for the image alignment error according to the detected actual error distance and the designated error distance," as recited in claim 13.

As shown in FIG. 13 of Hasebly et al., an "actual error distance of only the first and second test marks" is not being measured in Hasebly et al. Rather, in Hasebly et al., whether the two test marks falls into category (a), (b), or (c) identifies whether there is a misalignment of the

print cartridge and the print media, not "for compensating for the image alignment error according to the detected actual error distance and the designated error distance," as claimed.

Furthermore, claim 22, it is respectfully submitted that Hsselby et al. further fails to disclose or suggest at least "detecting an actual error distance of only the first and second test marks, for the compensating for the image alignment error according to the detected actual error distance and the designated error distance" recited in amended claim 22.

Claims 7-10, 12-15 and 20, 21, and 23 are rejected as being anticipated by Ikeda et al. (U.S. Patent No. 6,607,260). This rejection is respectfully traversed.

Thus, in addition to the above remarks noting that this outstanding § 102 rejection is actually a § 103 modification of Ikeda et al., which has not bee sufficiently supported by the Office Action, the following is respectfully submitted.

Regarding claim 7, the Office Action sets forth that Ikeda et al. discloses a test mark print-directing unit (fig. 3) which directs the carriage to print two test marks (figs. 1 and 4, a-F and a-R) separated from each other by a designed error distance (0) on a printing medium on which images are printed (column 13, lines 57-65, column 14, lines 13-30).

By way of review, and as mentioned in the previous response, in Ikeda et al., in order to get the distances between a-ref1 and a-F and a-ref1 and a-R, **the sensor *must* sense the distance not only between a-ref1 and a-F but also a-ref1 and a-R**, even though a designated error distance (0). **Here, the sensor *must* review at least 3 test marks**, such as a-ref1, a-F and, a-R to get the distances to check whether error is "0", in accordance with Ikeda.

As such, it is respectfully submitted that Ikeda et al. at least fails to disclose "a test mark sensing unit which senses only the two test marks, for the measuring of image alignment error", as recited in claim 7, for example, as well as the claimed detecting of an actual error distance based on the two test marks.

Ikeda et al. requires at least more than two marks.

Accordingly, it is respectfully submitted that Ikeda et al. does not disclose the invention recited in amended claim 7.

Claims 8-10, and 12 which depend from claim 7, respectively, are deemed patentable due at least to their depending from claim 7.

Regarding claim 14, the Office Action sets forth that Ikeda et al. discloses "a test mark sensing unit which senses the first and second test marks and outputs first and second sensed

results of the first and second test marks"

By way of review, as mentioned above, Ikeda et al. fails to disclose "a test mark sensing unit which senses only the first and second test marks, for the measuring of the image alignment error, and outputs first and second sensed results of the first and second test marks" as recited in amended claim 14.

Furthermore claims 20 and 21, which depend from claims 14, are deemed patentable due at least to their depending from claim 14, as well as for the additional recitations therein.

Regarding claim 23, the Office Action sets forth that Ikeda et al. "printing two test marks (FIG. 4, a-F, a-R) on printing medium according to a designated error distance"

By way of review, FIG. 4 of Ikeda et al. clearly shows Ikeda et al. needs to detect three marks on printing medium, such as a-ref1, a-F and a-R. As such it is respectfully submitted that Ikeda et al. does not disclose "detecting an actual error distance of only the first and second test marks using the measured instants of time to compensate for the image alignment error according to the detected actual error distance of the first and second test marks" as recited in amended claim 23.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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